

What is claimed is:

1. An image taking apparatus comprising:

a light splitting unit which splits a light flux from an image-taking lens to a plurality of light fluxes;

a view finder optical system for observing an object image formed by the light flux from the image-taking lens;

an image pickup element which photoelectrically converts the object image to an electric signal; and

a focus detection unit for detecting the focusing state of the image-taking lens according to a phase difference detection system,

wherein the light splitting unit changes between a first state in which the light flux is directed to the view finder optical system and the focus detection unit and a second state in which the light flux is directed to the image pickup element and the focus detection unit.

2. The image taking apparatus according to claim 1, further comprising:

an image display unit which displays image data acquired using the image pickup element; and

a control circuit which controls the driving of the image display unit,

wherein the control circuit causes the image display unit to display the image data when the light splitting unit is in the second state.

3. The image taking apparatus according to claim 2,  
 wherein the control circuit causes the image display unit to display only a part of the image data when the light splitting unit is in the second state.

4. The image taking apparatus according to claim 1, further comprising:

an information display unit which displays information within the field of view of a view finder; and

a control circuit which controls the driving of the information display unit,

wherein the control circuit does not drive the information display unit when the light splitting unit is in the second state.

5. The image taking apparatus according to claim 1, further comprising:

a light-blocking member which moves with respect to the optical path of the view finder optical system; and

a control circuit which controls the driving of the light-blocking member,

wherein the control circuit causes the light-blocking member to insert into the optical path when the light splitting unit is in the second state.

6. The image taking apparatus according to claim 1,

further comprising:

a control circuit which decides the focusing state of the image-taking lens based on the output of the focus detection unit,

wherein the control circuit changes the decision of the focusing state according to the first state and the second state.

7. The image taking apparatus according to claim 6,

wherein the control circuit decides the focusing state by correcting the output of the focus detection unit based on an initial phase difference and changes the value of the initial phase difference according to the first state and the second state.

8. The image taking apparatus according to claim 1,

wherein the light splitting unit has a first mirror and second mirror which are movable independently of each other,

in the first state, part of the light flux is reflected by the first mirror, directed to the view finder optical system, and the rest of the light flux passes through the first mirror, reflected by the second mirror and directed to the focus detection unit, and

in the second state, part of the light flux is reflected by the first mirror, directed to the focus detection unit and the rest of the light flux passes through the first mirror and is directed to the image pickup element.

9. The image taking apparatus according to claim 8,  
wherein the position of the reflecting surface of the second mirror in the first state is substantially the same as the position of the reflecting surface of the first mirror in the second state.
10. The image taking apparatus according to claim 8,  
wherein when changing from one state to the other between the first state and the second state, the light splitting unit is put in a third state in which the first mirror and the second mirror are withdrawn from the image-taking optical path.
11. The image taking apparatus according to claim 8,  
further comprising:  
a stopper member which contacts the first mirror for positioning the first mirror in the first state,  
wherein the stopper member can move with respect to the moving track of the first mirror.
12. The image taking apparatus according to claim 1,  
wherein the image-taking lens is attachable/detachable.
13. An image taking apparatus comprising:  
an image pickup element which photoelectrically converts an object image to an electric signal;

an image display unit which displays image data acquired using the image pickup element;

a control circuit which controls the driving of the image display unit; and

a mirror member which can move with respect to an image-taking optical path and allows at least part of the image-taking light flux to pass to the image pickup element side when the mirror member is inserted the image-taking optical path,

wherein the control circuit causes the image display unit to display only a part of the image data when the mirror member is inserted the image-taking optical path.

14. An image taking apparatus comprising;

a first mirror which splits a light flux from an image-taking lens to a plurality of light fluxes;

a second mirror which reflects the light flux passed through the first mirror;

a view finder optical system for observing an object image formed of the light flux from the image-taking lens; and

an image pickup element which photoelectrically converts the object image to an electric signal,

wherein the first mirror changes between a first state in which the light flux lens is directed to the view finder optical system and a second state in which the light flux is directed to the image pickup element,

the second mirror moves to the position away from the light flux directed from the image-taking lens to the image pickup element in the second state.

15. An image taking apparatus comprising;

a light splitting unit which splits a light flux from an image-taking lens to a plurality of light fluxes;

a view finder optical system for observing an object image formed of the light flux;

an image pickup element which photoelectrically converts the object image to an electric signal ; and

a light-blocking member which moves with respect to the optical path of the view finder optical system,

wherein the light splitting unit changes between a first state in which the light flux is directed to the view finder optical system and a second state in which the light flux is directed to the image pickup element,

the light-blocking member is inserted in the optical path of the view finder optical system in the second state.

16. A lens apparatus mounted on an image taking apparatus having a first mode in which a light flux from the object is directed to a view finder optical system and a focus detection unit and a second mode in which the light flux is directed to a image pickup element and the focus detection unit comprising;

a communication unit which communicates with the image

taking apparatus;

a light quantity adjusting unit which control the quantity of the light flux directed to the image taking apparatus; and

a control circuit which controls the driving of the light quantity adjusting unit according to the communication of the communication unit;

wherein the control circuit changes the practice of the control of the light quantity adjusting unit according to the first mode and the second mode.